SONY®

3-751-225-22 (2)

Trinitron® Color TV

KV-13TR24
KV-13TR14
KV-1427R

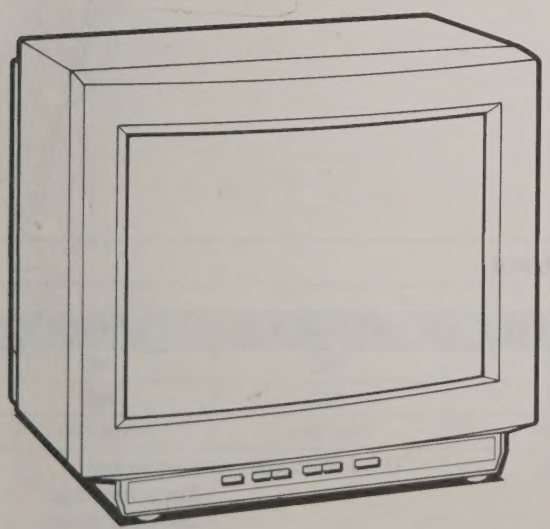
Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

Owner's Record

The model and serial numbers are located at the rear of the unit. Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No._____ Serial No._____



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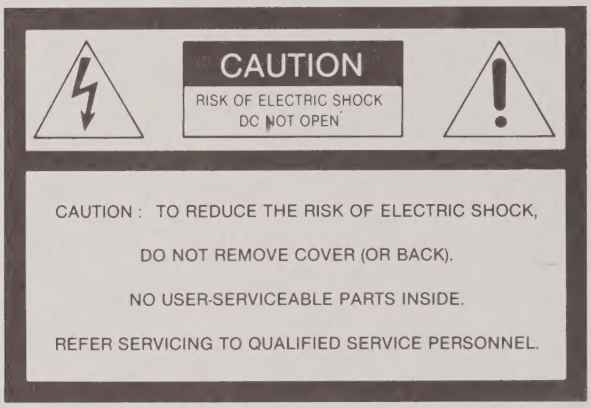
WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION:

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

Note to CATV system installer in the U.S.A.
This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Identify Your TV Before Use

In this manual, the instructions are given using the model with maximum functions. Please disregard information in the manual which contradicts with your TV.

First of all, please check the model number of your TV set.
This manual applies to three models and there are slight differences among them. Please check the table below to see what is equipped with your TV before you begin the operation.

Table for each model **YES: equipped** **NO: not equipped**

	KV-13TR24	KV-13TR14	KV-1427R
AUDIO IN and VIDEO IN jacks	YES	NO	NO
TV/VIDEO button	YES	NO	NO
Supplied Remote Commander	RM-781	RM-780	RM-780
Model destination	U.S.A.	U.S.A./Canada	Central and South America, and other areas

KV-1427R is for the customers in the countries other than the U.S.A and Canada.

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Features

Color monitor featuring a Mirrorblack™ Trinitron picture tube for high resolution, high contrast picture.

- **Multi-band VHF/UHF/CATV tuner** receives up to 125 cable channels for a total of 181 possible off-air and cable channels.
- **Built-in video input jack** for better quality picture of the connected VCR or other equipment (Only for KV-13TR24)
- **On-screen displays**

Supplied Remote Commander provides you many other convenient features.

- **Timer/Block** for automatic program starting and channel blocking.
- **Sleep timer** automatically turns off the TV after approximately one hour.
- **Automatic programming** to preset all receivable channels instantly.
- **Jump button** to switch quickly between two channels.

And other features for high quality picture...

- **Dynamic color™ system** for superior color reproduction with natural facial color tones and dazzling whites.
- **Dynamic picture™ system** adjusts picture contrast automatically to produce more detail in both bright and dark areas of every scene.

Precautions

Safety

- Operate the unit only on 120 V AC.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Installation

- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the unit in a hot or humid place or in a place subject to excessive dust or mechanical vibration.

Cleaning

Clean the unit with a slightly damp soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzine as they might damage the finish of the cabinet.

Repacking

Retain the original carton and packing materials for safe transport of this unit in the future.

Use of this television receiver for other than private viewing of programs broadcast on UHF or VHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

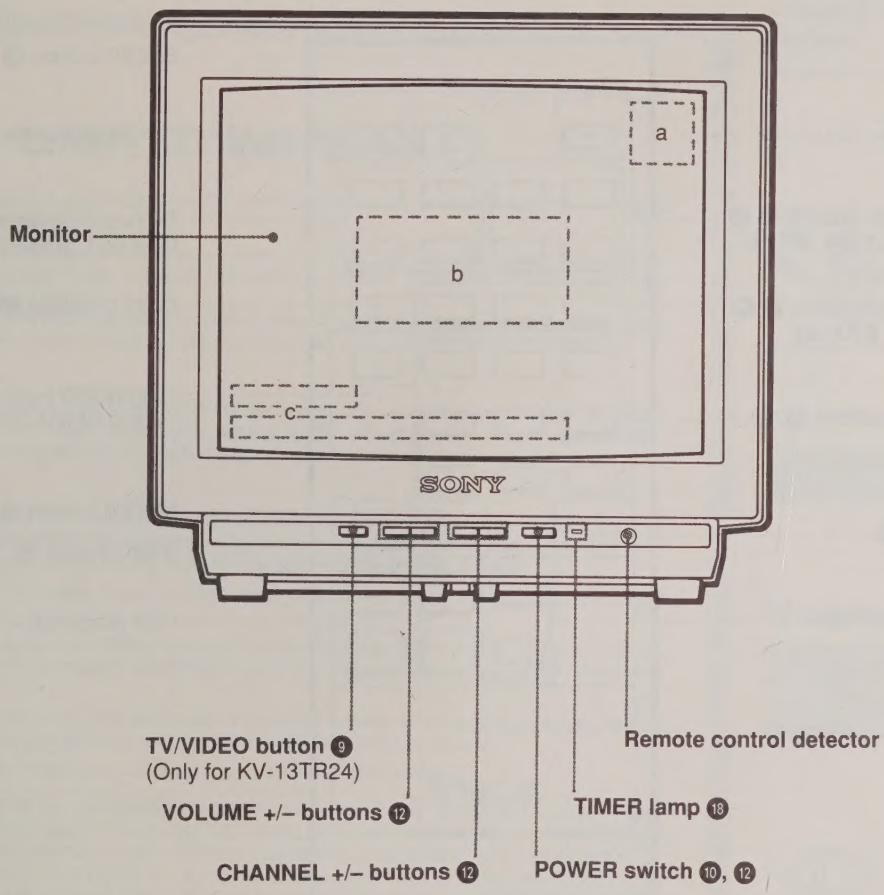
If you have any questions or problems concerning your unit, please contact your nearest Sony dealer.

For details safety precautions, see the leaflet "IMPORTANT SAFEGUARDS".

Location of Controls

Refer to the page indicated in ● for details.

Front



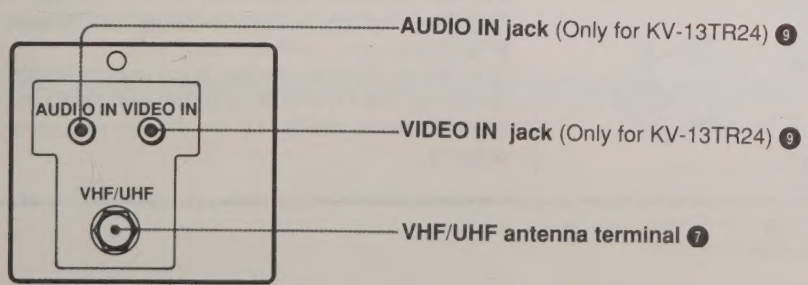
On-screen displays

a) • Channel numbers
- "MUTING" or "SLEEP" indication
- "VIDEO" indication (Only for KV-13TR24)

b) • "AUTO PROGRAM", "TIMER" or "TIMER BLOCK" indication

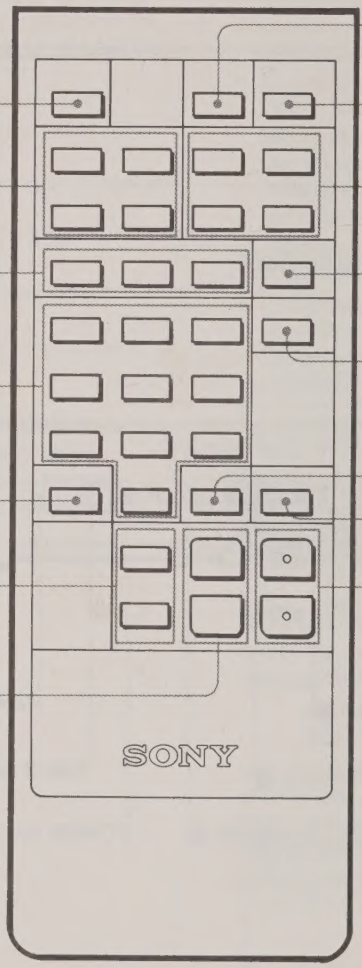
c) • Bar display for volume or picture adjustment
- Current time for Timer/Block.

Rear



Location of Controls

Remote Commander RM-780/781



MUTING button ⑭

TIMER/BLOCK setting buttons ⑮ (TIMER/BLOCK, CLEAR, AM/PM, OFF/REPEAT)

Channel presetting buttons ⑩ ⑪ (AUTO PGM, ADD, ERASE)

Channel number buttons ⑪, ⑫, ⑯

DISPLAY button ⑭

PICTURE +/– buttons ⑬

* VOL (volume) +/– buttons ⑫

SLEEP button ⑭

* POWER switch ⑩, ⑫

Picture adjusting buttons ⑬ (SELECT, RESET, LEVEL +/–)

CABLE button ⑩, ⑫

* TV/VIDEO button ⑨ (Only for RM-781)

ENTER button ⑪, ⑫, ⑯, ⑰, ⑱

JUMP button ⑭

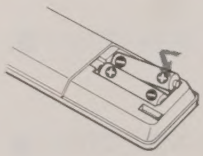
* CH (channel) +/– buttons ⑫

* The functions of these buttons are also available on the TV.

Battery installation

1 Open the lid.

2 Insert two size AA (R6) batteries with correct polarity.



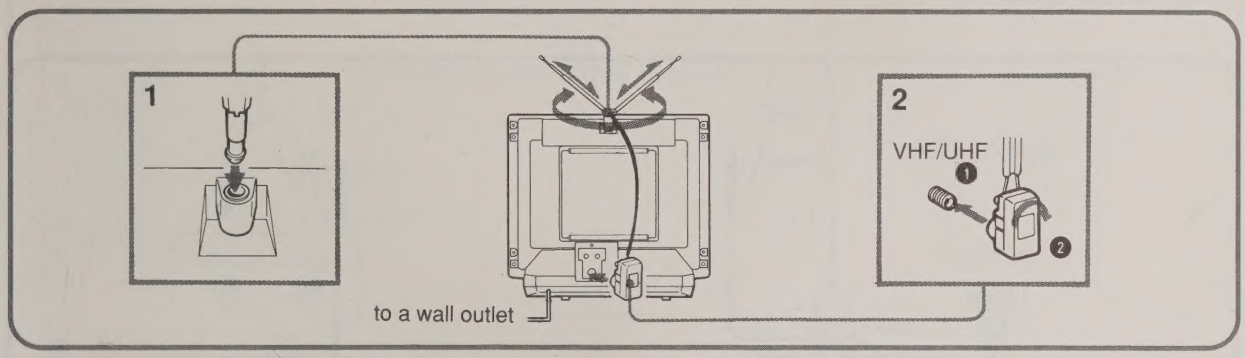
- In normal operation, batteries will last up to half a year.If the Commander does not operate properly, the batteries might be exhausted . Replace them with new ones.
- To avoid damage from possible battery leakage, remove the batteries when the Commander will not be used for a long time.
- If a Remote Commander that is not recommended is used to operate this TV, or if the supplied Remote Commander is used to operate another TV, the TV may not operate properly.

Connecting TV Antenna/Cable

Indoor Antenna Adjustment

For VHF/UHF reception, use the supplied telescopic dipole antenna.

Adjust the length, direction and angle of both elements symmetrically until the picture is clear.

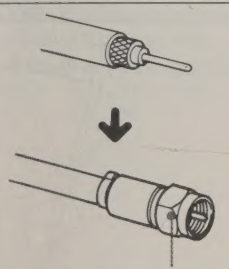
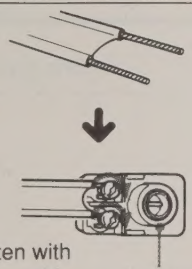


Outdoor Antenna Connection

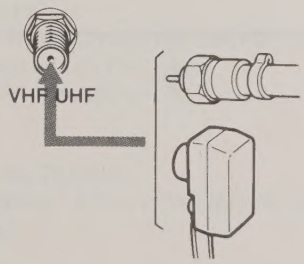
If you cannot obtain satisfactory reception with an indoor antenna, use an outdoor antenna.
Cable TV reception is only possible by connecting a cable supplied by your local cable operator.

To connect a VHF, UHF, or VHF/UHF combination antenna* or CATV cable

1 Check the cable type and prepare the cable end using the appropriate connector.

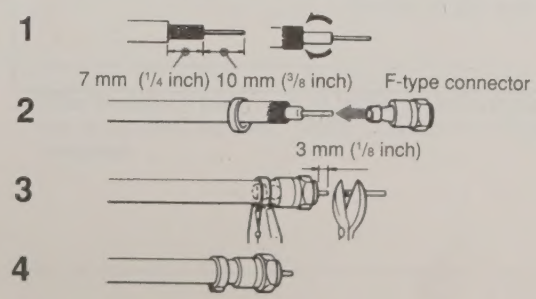
75-ohm coaxial cable (round)	300-ohm twin-lead cable (flat)
	
Attach an optional F-type connector.	Fasten with a screwdriver. Antenna connector

2 Plug the connector into VHF/UHF on the rear of the TV.



* Most combination antennas are equipped with a signal splitter. Remove the splitter and attach the appropriate connector.

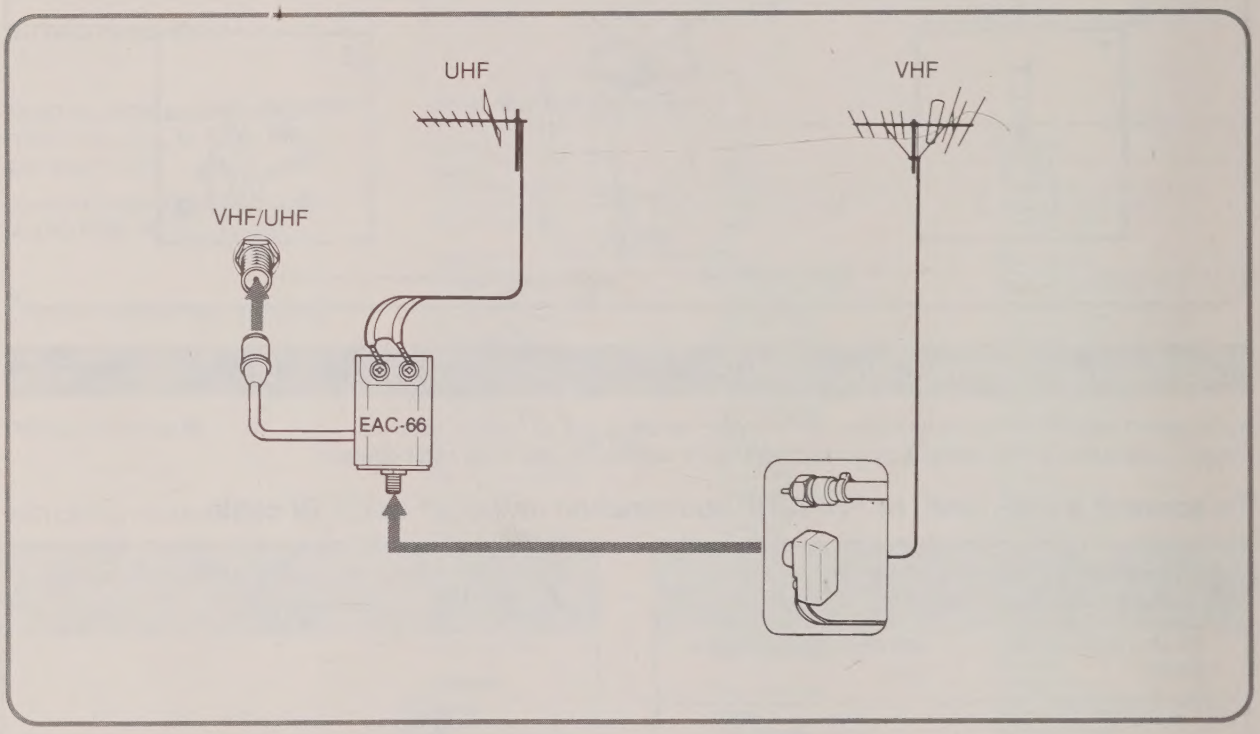
How to attach an F-type connector to the 75-ohm coaxial cable



Connecting TV Antenna/Cable

When you connect both VHF and UHF antennas
Use the optional EAC-66 U/V mixer.

1 Prepare the VHF antenna end using the appropriate connector.
2 Connect the cables to the mixer.
3 Plug the mixer to VHF/UHF.

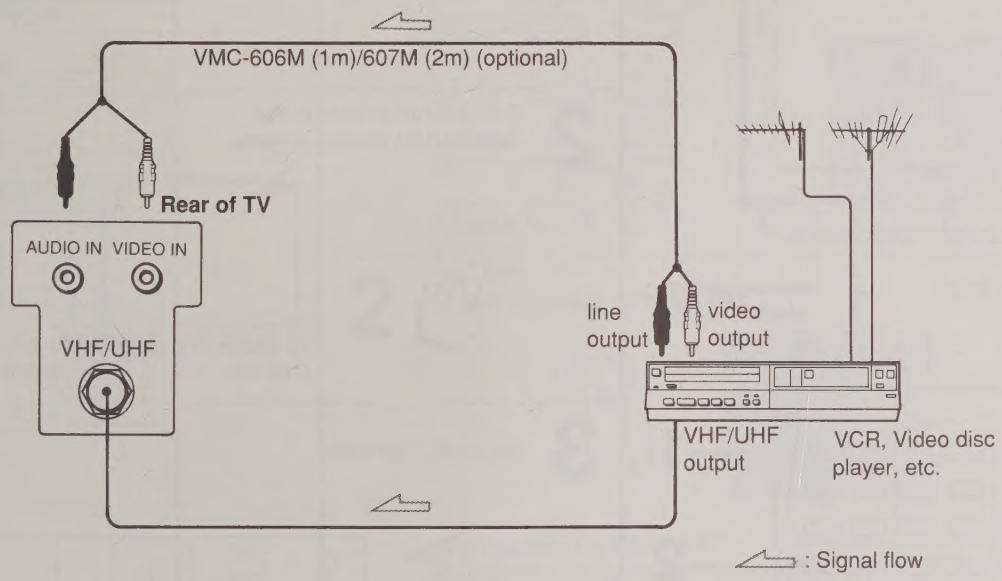


When the U/V mixer is used
Snow and noise may appear in the pictures of the cable TV channels over 37 (W + 1).

Connecting Other Optional Equipment

The AUDIO IN and VIDEO IN jacks are only equipped for KV-13TR24.

Connecting a VCR



With this connection, you will be able to ...
–View the playback of video tapes
–Record TV programs
–Record a TV program while viewing another

To watch the VCR picture

1 Turn on the TV.
2 Press the TV/VIDEO button so that the "VIDEO" indication appears on the screen.
3 Set the VCR in playback mode.

To return to the TV mode

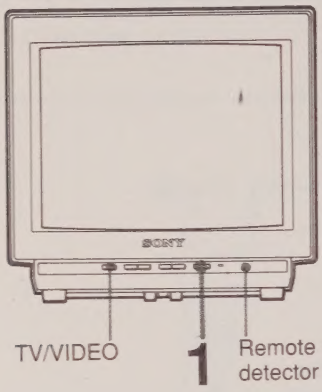
Press the TV/VIDEO button until a channel number appears on the screen.

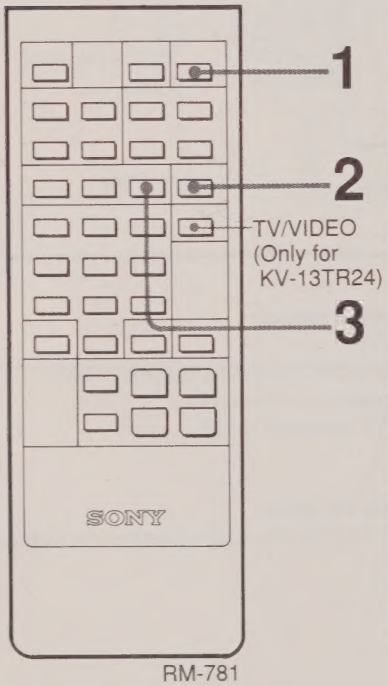
- For operation, refer to the instruction manual furnished with the VCR.
- Keep the VCR away from the TV, if the picture or sound is affected.
- When no signal is fed through the VIDEO IN jack even though the TV is in the video mode, "VIDEO" indication will appear on the screen.

Presetting TV Channels

To Preset All Receivable Channels Automatically

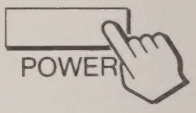
KV-13TR24



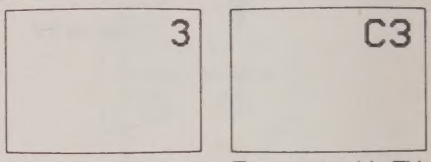


RM-781

1 **Press POWER on the TV or the Remote Commander to turn the TV on.**



2 **Press CABLE so that the appropriate mode appears.**



To preset VHF or UHF channels

To preset cable TV channels

3 **Press AUTO PGM.**

"AUTO PROGRAM" is displayed on the screen and receivable channels (other than the channels already preset) will be preset in numerical sequence. The channels previously preset remain in the unit's memory.
When no more channels can be found, the programming stops and the lowest numbered channel is displayed.

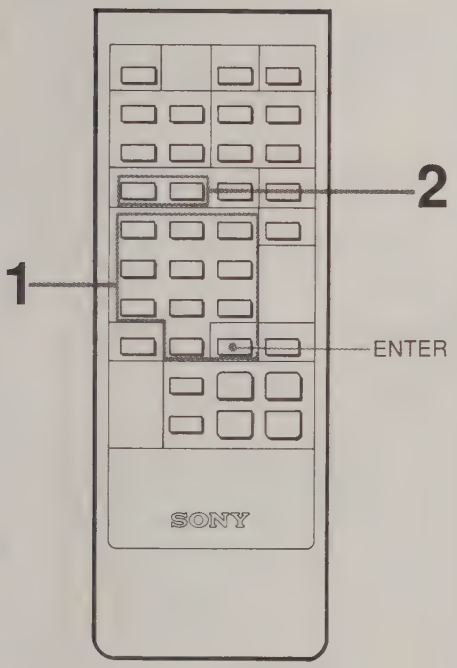
Receivable channels of this TV are:
VHF: 2-13
UHF: 14-69
Cable: 1-125

To add the channels that could not be preset with automatic programming because their signal strength was too weak, or **to erase unnecessary channels**, follow the steps in "To preset only the desired channels" on the next page.

To check preset channels
Press CH +/–.

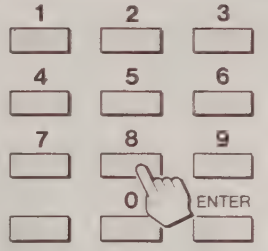
Only for KV-13TR24
If the "VIDEO" indication is displayed on the screen
Press the TV/VIDEO button on the TV or the Remote Commander so that a channel number appears.

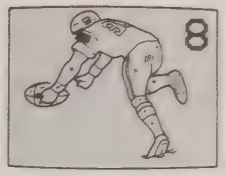
To Preset Only the Desired Channel or to Erase Unnecessary Channels



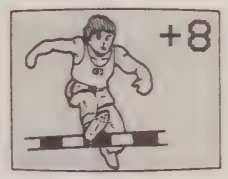
RM-781

1 **Press the channel number button(s) and then ENTER to select the channel to be added or erased.**



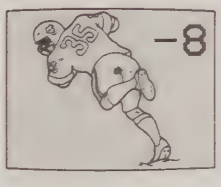


2 **To add channels – Press ADD.**



A "+" appears for a moment.
This channel has now been added to the channel scan memory.

To erase channels – Press ERASE.



A "–" appears for a moment.
This channel has now been erased from the channel scan memory.
The next time the CH +/– button is pressed, this channel will be skipped.

Repeat steps 1 and 2 for other channels to be added or erased.

When a VHF or UHF channel is erased
The cable TV channel with the same number is also erased and vice versa.

Cable TV channel chart*
Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to the chart below.

Number on this TV	1	5	6	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Corresponding CATV channel	A-8	A-7	A-6	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q

31	32	33	34	35	36	37	38	39	.....	93	94	95	96	97	98	99	100	101	102	.....	123	124	125
R	S	T	U	V	W	W+1	W+2	W+3	.....	W+57	W+58	A-5	A-4	A-3	A-2	A-1	W+59	W+60	W+61	.....	W+82	W+83	W+84

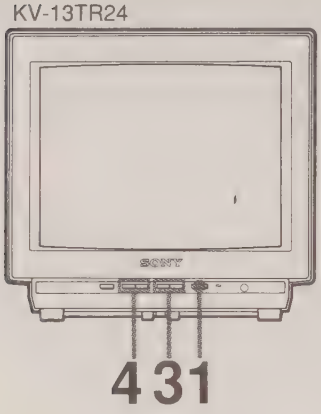
Check with your local cable TV company for more complete information on the available channels.

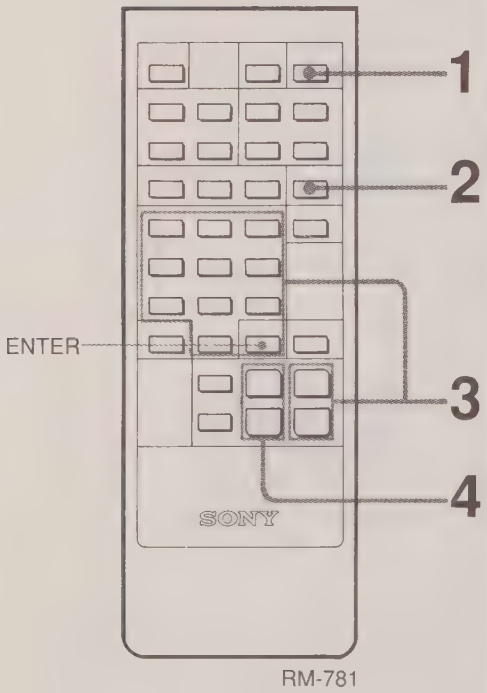
* The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

Note
Pay cable TV systems use scrambled or encoded signals and require special converters (decoders) in addition to the normal cable connection.

Watching TV Programs

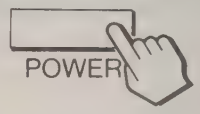
KV-13TR24



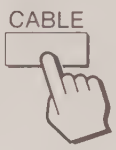


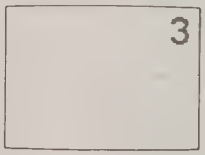
RM-781

1 **Press POWER on the TV or the Remote Commander to turn the TV on.**

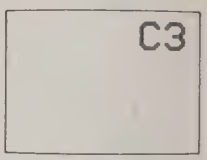


2 **Press CABLE so that the appropriate mode appears.**





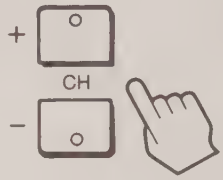
To view VHF or UHF channels



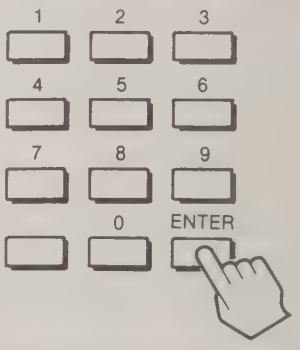
To view cabel TV channels

3 **Select a channel in one of the following two ways:**

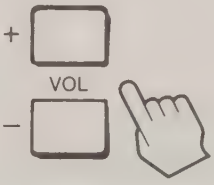
To scan the preset channels in numerical sequence, press CH +/–.



To select a channel directly, press the channel number button(s) and then ENTER. For example, to select channel 10, press 1, 0 and ENTER.



4 **Press VOL + or – to adjust the volume.**



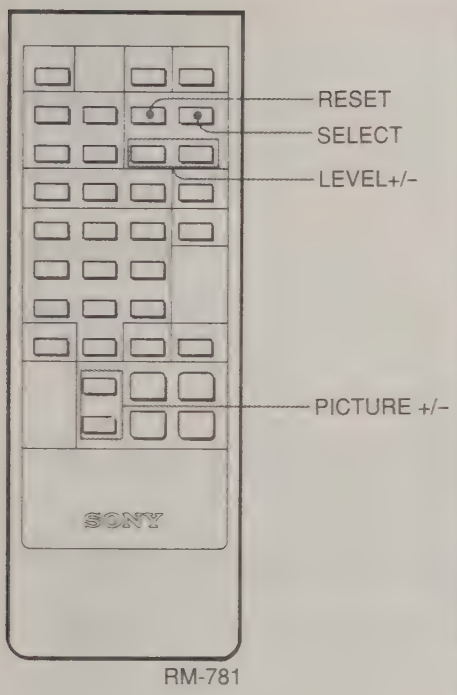
Note

To turn off the TV

Press POWER on the TV or the Remote Commander again.

Adjusting the Picture

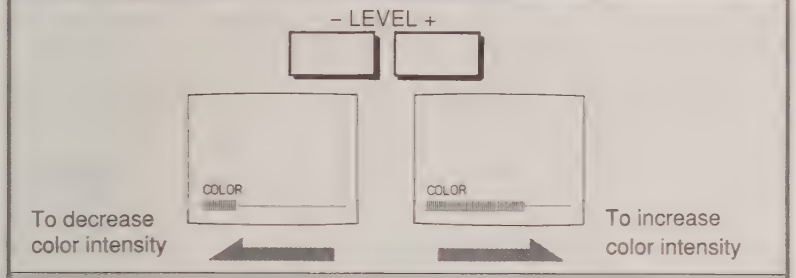
Press SELECT repeatedly until the on-screen display of the item to be adjusted appears, then press LEVEL +/–.



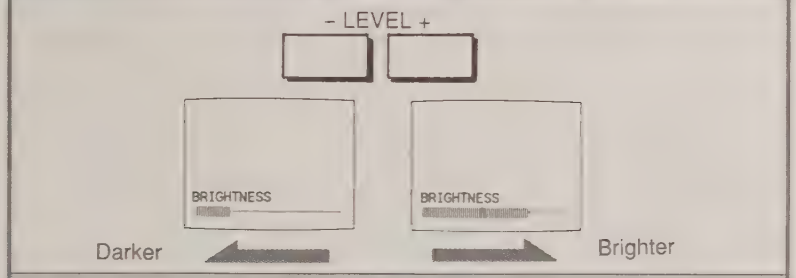
RM-781

HUE

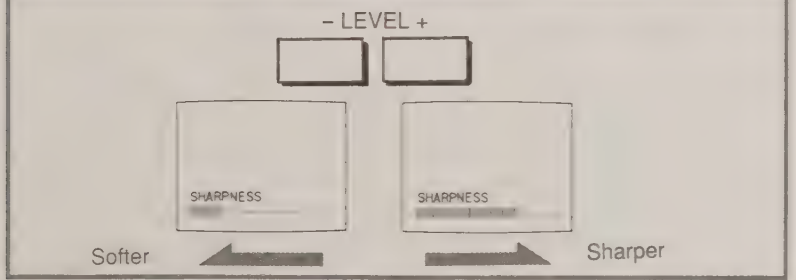
COLOR



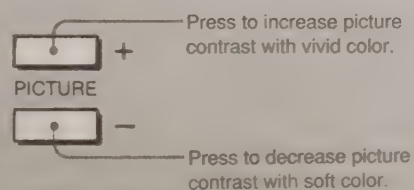
BRIGHT (brightness)



SHARP (sharpness)

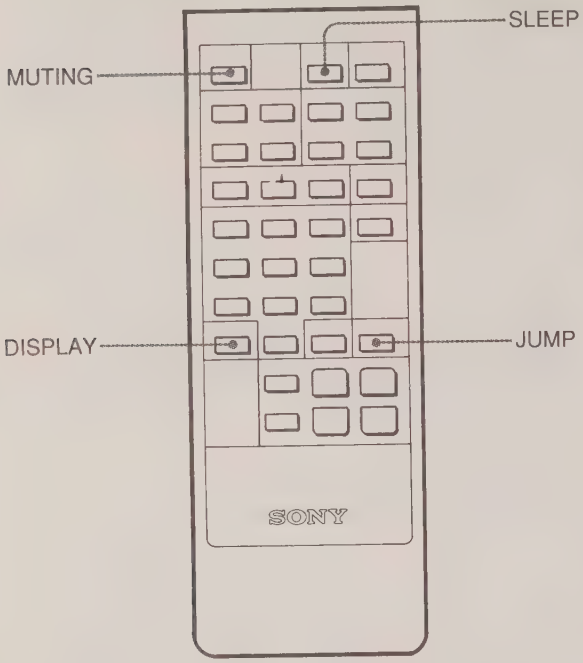


To adjust picture contrast



To clear the adjustment levels and restore the factory preset levels at once, press **RESET.**

Enjoying the Convenient Features



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Muting the sound

Press MUTING.
The "MUTING" indication will appear on the screen.
To restore the sound, press MUTING again or VOL +.

Keeping the channel displayed

Press DISPLAY.
To make the channel display disappear, press DISPLAY again.

Using the SLEEP timer

Press SLEEP.
The TV will be turned off automatically after about one hour. The green "SLEEP ON" indication will appear on the screen for a few seconds when SLEEP is pressed and the red "SLEEP" indication will appear one minute before the TV is turned off.
To cancel the SLEEP timer, press SLEEP again, or turn off the TV. The "SLEEP OFF" indication will appear when SLEEP is pressed again.

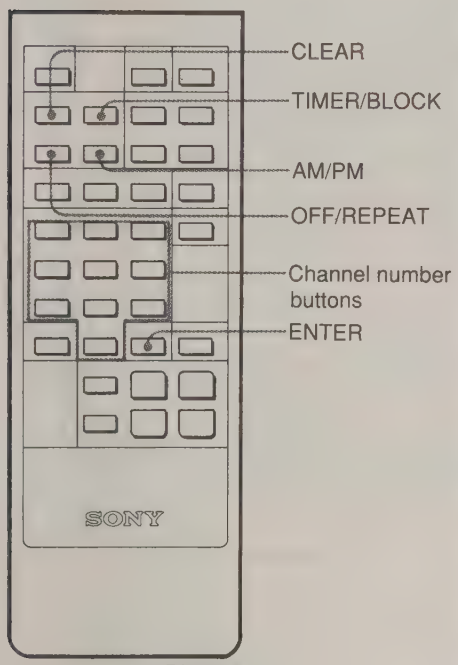
Switching quickly between two channels

Press JUMP.
Each time JUMP is pressed, the channel which appeared on the screen directly before is recalled. This button enables you to keep track of two programs alternately.

Available Functions

Internal clock	Once the internal clock is set, the current time will appear on the screen. It is necessary to set the clock correctly to activate the program start TIMER and channel BLOCK.
Program start TIMER	Makes a program of your choice appear on the screen automatically at the desired time.
Channel BLOCK	Blocks a channel from appearing on the screen for 12 hours. Use channel BLOCK to prevent children from watching undesirable programs.

The buttons used for the above functions are located on the Remote Commander.



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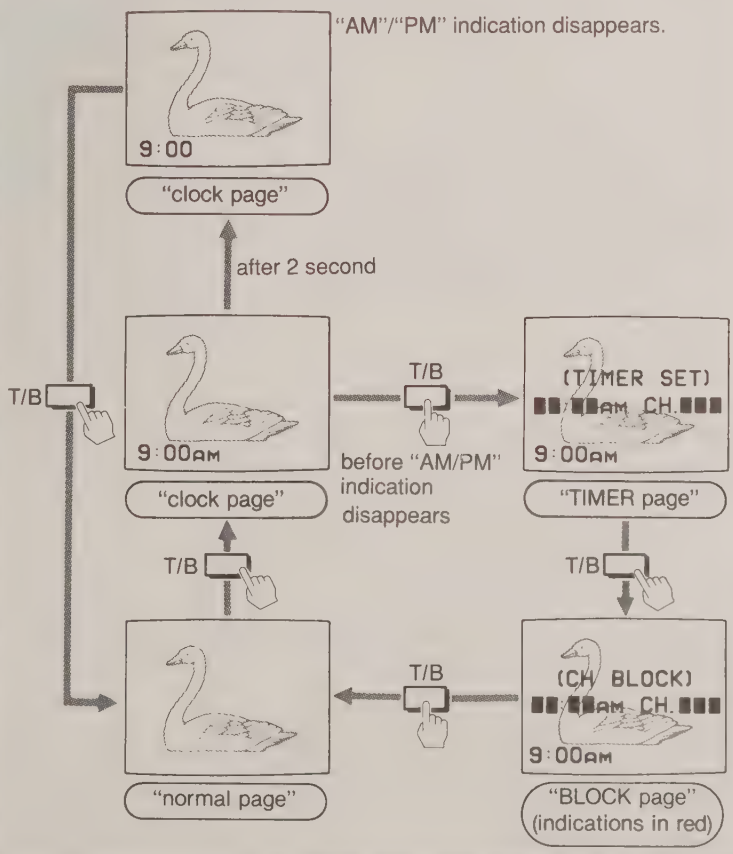
To set the internal clock, program start TIMER and channel BLOCK, you must summon the corresponding "pages": "clock page," "TIMER page" and "BLOCK page."
To change the "pages", press TIMER/BLOCK.
T/B stands for the TIMER/BLOCK button.

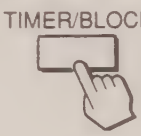


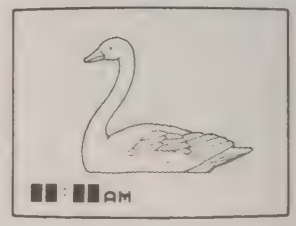
- All settings will be erased from the unit's memory if the unit is unplugged, or if a power failure occurs.
- The TIMER and BLOCK will operate only if the clock is set correctly.
- If the TIMER and BLOCK are set for overlapping times on the same channel, the blocked channel will appear on the screen at the time set on the TIMER.

How to Set the Internal Clock

Example: To set the clock to 8:05 PM

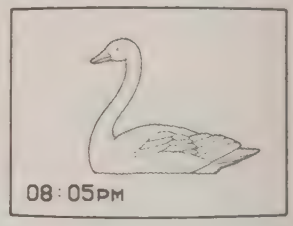
1 Press TIMER/BLOCK once to change from "normal page" to "clock page."



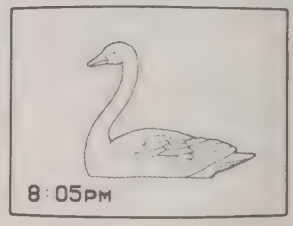


"clock page"

2 Press 0, 8, 0, 5 AM/PM (0 necessary).



3 If you have performed the operation correctly, press ENTER.
The numbers will "wink" to indicate that the clock has been set. (The 0 in front will disappear.)



If you have made a mistake, press CLEAR and return to step 2.
The "AM/PM" indication will disappear after 2 seconds.

To summon "TIMER page," press TIMER/BLOCK before the "AM"/"PM" indication disappears.

To return to "normal page," press TIMER/BLOCK after the "AM"/"PM" indication has disappeared.

To reset the clock, summon "clock page" and press CLEAR before the "AM"/"PM" indication disappears. Then follow the steps above from step 2.

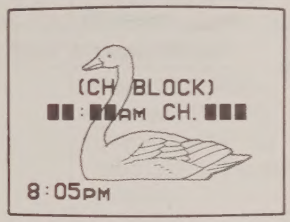
12:00 AM stands for midnight.
12:00 PM stands for noon.

How to Set the Channel BLOCK

Make sure that the clock has been set correctly before setting the channel BLOCK.

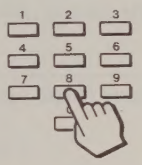
Example: To set the BLOCK for a program which begins at 9:30 AM on channel 8

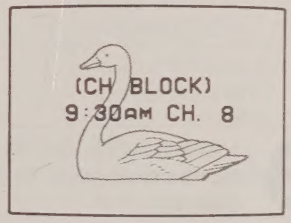
1 Press TIMER/BLOCK three times to change from "normal page" to "BLOCK page."



"BLOCK page"
(indications in red)

2 Press 0, 9, 3, 0, ENTER (0 necessary).
Numbers will "wink" to indicate that the time has been set.
Press 8, ENTER (0 not necessary). Numbers will "wink" to indicate that the channel has been set.





The BLOCK has now been set.

If you have made a mistake, press CLEAR and return to step 2.

At the preset time, the picture of the selected channel will be blocked from view and the sound will be muted.
A red "BLOCKED" indication will appear on the screen while the channel is blocked.
Normal reception will be resumed after 12 hours.

To return to normal reception while the channel is blocked, recall "BLOCK page" and press CLEAR.

The BLOCK setting blocks a specified channel for the same 12-hour period everyday.

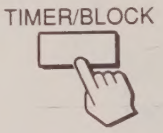
To clear BLOCK setting, summon "BLOCK page" and press CLEAR.
To reset, clear the setting and follow the steps above from step 2.

How to Set the Program Start TIMER

Make sure that the clock has been set correctly before setting the program start TIMER.

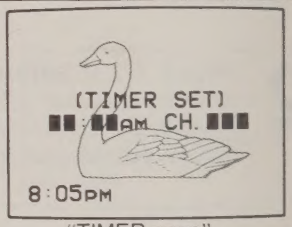
Example: To set the TIMER for a program which begins at 10:30 PM on channel 12

1 Press TIMER/BLOCK once to change from "normal page" to "clock page."



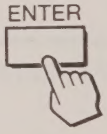
"clock page"

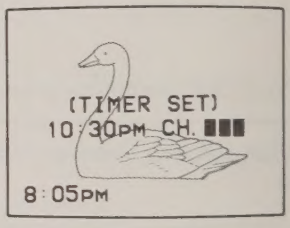
2 Press TIMER/BLOCK before the "AM"/"PM" indication disappears and summon "TIMER page."



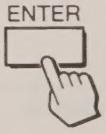
"TIMER page"

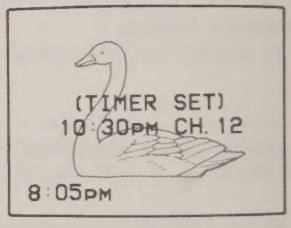
3 Press 1, 0, 3, 0, AM/PM, ENTER. Numbers will "wink" to indicate that the time has been set.





4 Press 1, 2, ENTER (0 not necessary). Numbers will "wink" to indicate that the channel has been set.





The TIMER lamp will light up to indicate that the TIMER has been set.

If you have made a mistake, press CLEAR and return to step 3.

At the preset time, the selected channel will appear on the screen and the TIMER lamp will go out. The TIMER will operate whether you are watching a TV program or a VCR playback, or even if you have turned off the TV.

If no button is pressed within 2 hours after the preset time, an "OFF" indication will appear on the screen for 1 minute. If a button is still not touched during the 1 minute, the TV will turn off automatically as a safety precaution.

The TIMER operates only once, but the time and the channel will remain in the unit's memory.

If you want to preset the same channel at the same time for a future date, press OFF/REPEAT. The TIMER lamp will light up to indicate that the TIMER has been reactivated.

If you want to deactivate the TIMER, press OFF/REPEAT again so that the TIMER lamp goes out. It is not necessary to summon "TIMER page" to use the OFF/REPEAT button. Furthermore, this button is effective even if the TV has been turned off.

To clear the TIMER setting, summon "TIMER page" and press CLEAR.
To reset, clear the setting and follow the steps from step 3.

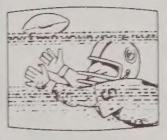
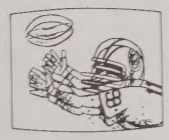
Specifications

Television system American TV standards
Channel coverage VHF: 2-13
UHF: 14-69
Cable TV: 1-125
Picture tube Mirrorblack Trinitron tube
13-inch picture measured diagonally
14-inch picture tube measured diagonally
Input
(Only for KV-13TR24) VIDEO IN (phono jack): 1 Vp-p, 75-ohms unbalanced, sync negative
AUDIO IN (phono jack): 408 mVrms (100% modulation)
Impedance: 47 kilohms
Power requirements 120 V AC, 60 Hz
Power consumption 97 W (max.)
Accessories supplied
Remote Commander RM-780 with 2 size AA (R6) EVEREADY batteries (1)
(KV-13TR14, KV-1427R)
Remote Commander RM-781 with 2 size AA (R6) EVEREADY batteries (1)
(KV-13TR24)
VHF/UHF telescopic dipole antenna (1)
Antenna connector (1)
Optional accessories
U/V mixer EAC-66
Connecting cord VMC-606M/607M, etc.

Design and specifications are subject to change without notice.

Troubleshooting

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed below.

	SYMPTOM	CHECK AND ADJUST
GENERAL	**Poor or no picture (screen not lit), good sound**	• Adjust PICTURE. • Adjust BRIGHT. • Check antenna/cable connections.
	Good picture, no sound	• Press VOLUME +. • Release MUTING. • Check that the TV/VIDEO button is set correctly.
	No picture (screen not lit), no sound	• Is POWER switched on? • Power in outlet? • Check that the TV/VIDEO button is set correctly.
	No color	• Is it a color program? • Adjust COLOR.
	Snow and noise only	• Is it an active or the correct channel? • Check the CABLE selector setting. • Check antenna/cable connections.
	 **Dotted lines or stripes**	This is often caused by local interference. (e.g. cars, neon signs, hairdryers, etc.) Adjust antenna for minimum interference.
	 **Double images or ghosts**	Reflections from nearby mountains or buildings often cause this problem. A highly directional outdoor antenna or a CATV cable may improve the picture.
	Try another channel. It could be station trouble.	
TIMER/BLOCK	**Program start TIMER and/or channel BLOCK does not operate properly.**	• Is the clock set correctly? • Is the setting correct? • Have you unplugged the unit? • Has a power failure occurred? If so, the settings have been erased.

If the problem persists, contact your nearest service facility.

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